

1 S T Q U A R T E R

2000 Operational Report to Congress

O C T O B E R - D E C E M B E R 1 9 9 9

Overall

Directors Skila Harris and Glenn L. McCullough, Jr., joined Chairman Crowell on the TVA Board in November after taking the oath of office in ceremonies held in Washington and in Tupelo, Mississippi. A series of receptions were held at major TVA office sites around the region to introduce the new directors to employees.

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The end of the first quarter of Fiscal Year (FY) 2000 was marked by the smooth transition of TVA operations into the calendar year 2000 without any disruptions related to the Y2K date change. The transmission system and all TVA power plants were Y2K-ready. More than 500 extra operations personnel were on duty or standby across the 80,000-square-mile service territory to respond to any potential contingency. The operations center in Chattanooga also was in constant contact with local utilities served by TVA and with the North American Electric Reliability Council.

In December, the TVA Board approved an agreement negotiated with the Department of Energy (DOE) to assist in the production of tritium at Watts Bar Nuclear Plant. The agreement establishes the details by which TVA will be reimbursed by DOE for the cost of production. Following the Board's action, officials at DOE signed the agreement in late December.

TVA is responding to a compliance order issued November 3 by the Environmental Protection Agency that contends maintenance projects at ten of TVA's coal-fired plants violated clean air requirements for new generating sources. TVA presented legal and technical information to the EPA on December 20 to show that the maintenance projects did not meet the criteria to classify them as new generating sources. Similar EPA allegations of new source requirement violations are also being contested by operators of other power systems. TVA has spent more than \$2 billion during the past several years to install equipment to improve air quality.



Milestones

Operations

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- After only four years of operation, Watts Bar Nuclear Plant received the highest performance rating possible from the Institute of Nuclear Power Operators (INPO) in November following an extensive evaluation by representatives from INPO and the World Association of Nuclear Operators (WANO). Watts Bar joins TVA's Browns Ferry and Sequoyah nuclear plants in holding INPO's highest performance rating.
- TVA is installing the first selective catalytic reduction system at the Paradise Fossil Plant in Kentucky. TVA is voluntarily installing the advanced nitrogen oxide removal technology to improve air and permit the continued use of Kentucky coal. TVA will spend about \$500 million to install the new emission reduction technology at Paradise and other coal-fired plants.
- A total of 680 megawatts of additional combustion turbine capacity is being added at the Johnsonville and Gallatin fossil plants to supplement the power system's peaking capacity. The additional capacity is expected to be available by summer.
- Sixteen combustion turbines at the Johnsonville Fossil Plant are being modified to burn natural gas in addition to fuel oil. The dual fuel capability provides flexibility to purchase the lowest cost fuel. Nitrogen oxide emission also will be lower when natural gas is used. The installation of a 28-mile pipeline to furnish natural gas to the plant site is nearing completion.
- To meet increasing demand for power, TVA has proposed building a combustion turbine installation at one of three sites in Haywood County, Tennessee. A draft Environmental Impact Statement that assesses several alternatives is available for public comment through January 31. TVA's preferred alternative is to install up to 1,400 megawatts of simple cycle capacity at Lagoon Creek for operation as early as May 2001.
- Unit 3 at Browns Ferry and Unit 1 at Sequoyah have broken the previous TVA Nuclear continuous-run record of 390 days. Both units operated more than 400 days. The previous record was set in April 1998 by Unit 3 at Browns Ferry.
- Cumberland Fossil Plant earned a Five-Star rating from Resource Data International based on the plant's composite performance during 1998. Also, Bull Run Fossil Plant was ranked fourth nationally in heat efficiency by *Electric Light & Power* magazine.
- A total of 47 miles of new transmission lines were installed at various project sites and one new delivery point was completed to improve reliability and service. Maintenance was performed on equipment across the system in preparation for winter operating conditions.

The Public Power Institute
partnered with the
Outlook Policy Forum in
Washington, DC, to hold
a National Energy
Strategy Town Meeting
in Knoxville on
November 17.

River System Operations & Environment

- Dry conditions continued across the TVA region this fall. Rainfall from August to November was almost 6.4 inches below normal, recording the fourth-lowest total in the past 110 years. Water supply became an issue, particularly in the western portion of the basin. Special water levels or flows were initiated to augment water supplies for Russellville and Limestone County in Alabama and Parsons, Tennessee. Navigation on the lower Ohio and Mississippi rivers was also a concern. TVA worked with the Coast Guard, USACE, and navigation interests to coordinate releases from Kentucky and Barkley reservoirs to alleviate low water conditions on the Ohio and Mississippi rivers.
- TVA was awarded a patent for technology that is the basis for a system providing online data, analyses, and graphics that compare a hydroelectric plant's performance with its optimal potential. The WaterView System at hydro plants can increase generation and operating efficiencies, minimize maintenance expenses, reduce cavitation damage, and meet environmental goals.
- TVA began the transition of Land Between the Lakes to the U.S. Forest Service in October. Representatives from both agencies are working to ensure a smooth transition.
- The Public Power Institute partnered with the Outlook Policy Forum in Washington, DC, to hold a National Energy Strategy Town Meeting in Knoxville on November 17. The meeting was one of several held across the nation to gauge public opinion on energy issues. The input will be used in development of the National Energy Policy.

Finance

- The TVA Retirement System net assets totaled \$7.4 billion at December 31, 1999. Assets increased \$1.025 billion, or 14.5 percent, for the calendar year before providing \$300 million in benefit payments. A total of 188 retirement applications were processed during the quarter. The total retirement applications received during the calendar year 1999 was 1,122. Total retirees are now 20,749, or 1.59 for every active employee.
- The Nuclear Decommissioning Trust market value was approximately \$828.5 million at December 31, 1999. This represents a gain of about \$134.6 million (19.4 percent) for the calendar year.
- TVA called the 8.625 percent 1989 G Series bonds on December 16, 1999. These bonds carried the highest coupon of bonds in TVA's debt portfolio. TVA will monitor markets closely at the beginning of the year for an opportunity to replace the 8.625 percent bonds.

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- The 1999 TVA Annual Report was published in December. Copies will be mailed to 150,000 investors in early January. Financial performance highlights include net income from the power program of \$119 million and a debt reduction of \$308 million during FY 1999. During the past three years, TVA debt has been reduced by \$1.3 billion.
- The Expense Reimbursement System (ERS) was implemented. ERS allows employees to request reimbursement of expenses online through TVA's internal website. The system can be used for travel and other business-related expenses.
- TVA submitted the fourth quarter Electronic Funds Transfer (EFT) Report to the U.S. Treasury. In FY 1999, TVA paid 94 percent of payments (including vendor and payroll payments) by electronic transfer. The average for all government agencies was 73 percent, placing TVA ahead of the average. The Federal EFT goal for vendor payments in FY 2000 is 75 percent.
- On January 1, 2000, TVA performed Y2K testing with the Fed on TVA's Fedline system. TVA's system performed with no problems.
- TVA hosted 25 key members of the financial community in November for a two-day tour of headquarters and operations to update them on TVA's financial and strategic position and the operational excellence of the power system. The group included top analysts, investment bankers, and discount-note traders.

Customer Service

- A total of \$5.6 million in TVA economic development loans were approved for business growth in the Tennessee Valley. The loans will help leverage an additional \$47 million in capital investment to generate or retain approximately 1,723 jobs within the next year.
- Target Stores announced in November that it will build a one million-square-foot distribution center on a 154-acre site in Huntsville, Alabama, that will eventually employ more than 1,200 people. The center, expected to open in May 2001, initially will employ about 450 and increase to as much as 850 during the first 30 months. Employment will continue to increase with the addition of Target retail outlets in Alabama.
- TVA is experiencing considerable growth in the marketing and installation of geothermal heat pump systems. More than 70 geothermal systems are either operational or under construction in schools in the TVA service area. The technology, which uses water pumped through in-ground pipes for both heating and cooling, is especially efficient in the region because of the relatively constant year-round underground temperature of 59 degrees. TVA is working to evaluate the feasibility of installations at other facilities such as a state prison, the Nashville Zoo, assisted living centers, and nursing homes.

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Fossil Plant.**

- TVA and the State of Tennessee co-hosted the 1999 International Development Research Council World Congress in Nashville October 16-20. The event drew 2,500 corporate real estate executives, site research consultants, and economic development professionals from around the world.

Other

- An investigation by TVA Police and the Office of Inspector General led to the federal indictment of a Tennessee man in December on three charges related to the attempted bombing of the Erin substation located near Cumberland Fossil Plant. The indictment was returned by the Federal Grand Jury for the Middle District of Tennessee. Each of the charges carries a sentence of up to 10 years in federal prison and a fine up to \$250,000.
- Thomas W. Cease, a TVA engineer in Chattanooga, was honored by the Institute of Electrical and Electronic Engineers as a Fellow for his significant contributions involving development of an optical transducer as an alternative to large oil-filled instrument transformers.
- TVA and the EPRI, the national electric industry research organization, sponsored a wastewater conference in Nashville October 20-22. The event included a bus tour to a national wastewater project site in North Alabama that is a joint effort between TVA and Joe Wheeler Electric Membership Corporation.